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STATE FOR EAP/MLS AND EB,  
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TAGS: [ECON](#) [ENRG](#) [EPET](#) [KNNP](#) [TH](#) [SENV](#) [TSPL](#) [TRGY](#)

SUBJECT: THAILAND MAKES PLANS FOR NUCLEAR POWER

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**¶1.** Summary. With increasing energy demand and dwindling domestic natural gas reserves, Thailand will face energy shortages unless new sources are developed. The RTG's long-term energy policy strategy calls for nuclear energy to play a significant role, with plans to have 4000 MW of generating capacity online by 2021. This would be the RTG's first foray into nuclear power generation. Consultations with the IAEA are already underway. Prime Minister Surayud Chulanont has come out publicly in support of nuclear energy. King Bhumiphol has called for the RTG to make careful preparations for constructing a nuclear power plant. Energy Minister Piyasvasti Amranand said that nuclear is the only viable long term energy solution for Thailand. End summary.

NOW, ONE SMALL RESEARCH REACTOR AND ANOTHER IN ARBITRATION...

**¶2.** Thailand has operated one tiny two megawatt research reactor for over 30 years. Too small to generate electricity, this reactor is used to produce isotopes for use in medicine and food irradiation.

**¶3.** (SBU) In 1997, the Office of Atoms for Peace (OAP) signed a THB 3.3 billion (USD 133 million at the exchange rate at the time) contract with General Atomics (GA), a San Diego-based unit of General Dynamics, to build a ten megawatt research reactor. After ten years of protests and administrative delays, the project is nowhere near completion. Last year the Ministry of Science ordered OAP to halt work on the project. Now GA and OAP are reportedly involved in arbitration. According to Dr. Somporn Chongkum, Executive Director of the Thailand Institute of Nuclear Technology, GA failed in its attempt to obtain licensing from the U.S. Nuclear Regulatory Commission because it had not previously built a reactor of that size.

... .BUT BY 2021, FOUR REACTORS AND 4000 MEGAWATTS...

**¶4.** Recently, Dr. Kopr Kritayakirana, Chairman of the Nuclear Power Infrastructure Preparation Committee (NPIPC) and Advisor to the Minister of Science and Technology assembled a panel of technical and policy experts to brief econoffs. Kopr explained that Thailand first considered nuclear energy in the mid 1970s but then abandoned the idea when huge natural gas reserves were found in the Gulf of Thailand. In the mid 1990s after a decade of strong economic growth, Thailand again began plans to build a nuclear reactor but abandoned the idea in the wake of the 1997 financial crisis.

**¶5.** Natural gas presently generates 66 percent of Thailand's electricity, but domestic reserves are declining. The

National Energy Policy Commission (NEPC) outlined three scenarios based on high, medium, and low rates of economic growth. Even the low scenario forecasts peak electricity demand to double from 22,311 megawatts in 2007 to 45,031 megawatts in 2021, far exceeding present capacity. The NEPC envisages a significant role for nuclear energy to make up the shortfall.

¶6. Illustrative of the direction the current government plans to take, when Energy Minister Piyasvasti delivered the keynote speech at a recent "High-level Forum on Lao-Thai Partnership in Sustainable Hydropower Development," he barely mentioned hydropower but spoke at length about Thailand's nuclear plans. Piyasvasti stated unequivocally, "Nuclear is the only sensible solution to global energy demand." Then he underscored his view that in the long run, nuclear energy is the only sustainable, cost-effective source of energy that will not exacerbate the problem of global warming. Prime Minister Surayud Chulanont recently came out in support of Thailand's plans for nuclear power. In a recent speech at a gathering of Thai ambassadors, King Bhumiphol also called for the RTG to proceed with careful preparations for nuclear power.

¶7. EGAT and the Ministry of Energy (MOEN) recommend that by 2021, nuclear power should provide nine percent of Thailand's electricity. The NPIPC will present its final recommendation by ¶2014. If the plan is approved, EGAT will begin construction on the first of four 1000 megawatt reactors shortly thereafter. The first two are expected to come online in 2020 and the second two in 2021. Planning is still in the preliminary phase so EGAT will not likely open any contracts to bidding for several more years. American, Asian, and European firms have already started to position themselves.

¶8. Kopr recently led a Thai delegation to Vienna for consultations at the IAEA about moving forward with plans to build nuclear reactors. A team from the IAEA then visited Thailand for further

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consultations. Speaking at the Sixth Congress of Science and Technology in Bangkok this past July, Dr. Mohamed El Baradei, Director General of the IAEA, characterized nuclear energy as an "engine for development" and encouraged Thailand to continue to work closely with the IAEA as it proceeds with its plans to construct nuclear reactors.

... .IF THAILAND CAN OVERCOME NIMBY AND FIND ENOUGH NUCLEAR ENGINEERS. . .

¶9. As is often the case when new power plants of any stripe are built, a nuclear power plant will likely face "NIMBY" sentiment and opposition from environmental groups. Earlier this year, an industry and government energy policy and strategy meeting had to be moved from a hotel to an Army club due to security concerns involving anti-nuclear protesters. Somporn said that currently his office is working to improve public awareness of the benefits of nuclear power and the many uses of the research reactor, such as creation of medical isotopes, irradiation of fresh produce, and changing the colors of gemstones and flowers. Many private sector analysts, however, are skeptical that the RTG can overcome "NIMBY" to complete the project within the planned timeframe.

¶10. Another obstacle is a shortage of qualified nuclear engineers. Only ten Thai are presently studying nuclear engineering in the U.S. but the RTG plans increase that number to ensure an adequate personnel pipeline once the reactors start operations.

...BECAUSE WIND ALONE CAN'T KEEP THE AIR CONDITIONERS RUNNING

¶11. Although alternatives, renewables, and conservation figure in the RTG's energy plan, under present technologies and cost structures, no one we have spoken to foresees these making a significant dent in Thailand's energy needs over the medium term. However, the division of the MOEN charged with alternative,

renewable, and sustainable energy and efficiency programs employs nearly half of the staff of the entire ministry and commands almost half of the ministry's budget, reflecting longer term plans in these areas. For now, the MOEN's focus is on nuclear energy.

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